



1B7-GT



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PENTAGRID CONVERTER

| | | |
|--|-------------------------------|-----------|
| Filament | Coated | |
| Voltage | 1.4 | d-c volts |
| Current | 0.10 | amp. |
| Direct Interelectrode Capacitances: ^o | | |
| Grid #4 to Plate | 0.34 | μuf |
| Grid #4 to Grid #2 | 0.26 | μuf |
| Grid #4 to Grid #1 | 0.12 | μuf |
| Grid #1 to Grid #2 | 0.90 | μuf |
| Grid #4 to All Other Electrodes (R-F Input) | 7.0 | μuf |
| Grid #2 to All Other Electrodes Except | | |
| Grid #1 (Osc. Output) | 4.2 | μuf |
| Grid #1 to All Other Electrodes Except | | |
| Grid #2 (Osc. Input) | 4.0 | μuf |
| Plate to All Other Electrodes (Mixer Output) | 7.5 | μuf |
| Maximum Overall Length | 3-5/16" | |
| Maximum Seated Height | 2-3/4" | |
| Maximum Diameter | 1-5/16" | |
| Bulb | T-9 | |
| Cap | Skirted Miniature, Style C | |
| Base | Sm. Wafer Octal 8-Pin, Sleeve | |
| Pin 1 - Base Sleeve | Pin 6 - Grid #2 | |
| Pin 2 - Filament + | Pin 7 - Filament - | |
| Pin 3 - Plate | Pin 8 - No Connection | |
| Pin 4 - Grids #3 & #5 | Cap - Grid #4 | |
| Pin 5 - Grid #1 | | |
| Mounting Position | Any | |



BOTTOM VIEW (GT-7Z)

CONVERTER SERVICE

| | | |
|---|----------------|---|
| Plate Voltage | 110 max. volts | → |
| Screen (Grids #3 & #5) Voltage # | 65 max. volts | → |
| Screen Supply Voltage | 110 max. volts | → |
| Anode-Grid (Grid #2) Voltage | 110 max. volts | → |
| Total Zero-Signal Cathode Current | 4 max. ma. | → |
| Typical Operation and Characteristics: | | |
| Plate | 90 volts | |
| Screen | 45# volts | |
| Anode-Grid | 90 volts | |
| Control-Grid (Grid #4)* | 0 volts | |
| Oscillator-Grid (Grid #1) Resistor | 200000 ohms | |
| Plate Resistance | 0.35 megohm | |
| Conversion Transcond. | 350 μmhos | |
| Control-Grid Bias for Conversion | | |
| Transcond. of approx. 2 μmhos | -14.5 volts | |
| Plate Cur. | 1.5 ma. | |
| Screen Cur. | 1.3 ma. | |
| Anode-Grid Cur. | 1.6 ma. | |
| Oscillator-Grid Cur. | 0.035 ma. | |
| Total Cathode Cur. | 4.4 ma. | → |

NOTE: The transconductance of the oscillator portion (not oscillating) is 875 μmhos under the following conditions: plate volts, 90; screen volts, 45; control-grid volts, 0; anode-grid volts, 90; oscillator-grid volts, 0.

^o With close-fitting shield connected to negative filament terminal.

Obtained preferably by using a properly by-passed #5000- to 75000-ohm voltage dropping resistor in series with the supply voltage.

* A resistance of at least 1.0 megohm should be in the grid return to negative filament pin.

Typical Pentagrid Converter Circuit is shown under Type 116.

→ Indicates a change.

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RCA RADIOTRON DIVISION
RCA MANUFACTURING COMPANY, INC.

TENTATIVE DATA